

11/15/2015 - All

Agenda:

Reflect on design review

Talk about math model - Kylie energy, Jay momentum

Decide next steps

Design Review: short but got most of the information across. Good question and answer section. Nice use of video and really showed what we were trying to do.

Math model – Energy

Jay – lighter the scope, the smaller the acceleration

Motor vs pneumatic

Motor – quieter,

-Easier – we all used them before

-may have to turn off the motor right before it hits.

-Would need a step motor – makes it more complicated.

Pneumatic – not going to damage it with abrupt start.

-we believe we can use Arduino,

-don't really have to worry about noise because the shop was already noisy.

Next steps: get a small pneumatic rotary

First need to figure out Torque needed to bring it back – mass, distance

Thought about creating a makeshift tube.

Torque –

Mass – .78kg

1.73 lbs

Center of mass – 6 inches

$T = 10.2 \text{ lbin}$

Action Items:

Send Pi an email to get accelerometers – Jason

- Ask if he has spare clamps

Get small pneumatic rotary – Jay and Dillon

- Dillon – get part number – pneumatic air cylinder, hose adapter, and rubber

- Jay – buy or find cheaper

Bring in motors – All

Research motors needed -

Torque needed calculations – 10.2 lbin

Design a way to attach –

Meeting Friday at 9:30am – All

- Make an order – rubber too

- Talk about research

- Talk about holding the scope.

